

Teachers:

Below is a list and description of attached charts made from the water use data you and your students collected. I've identified which question referred to each graph. Please contact me if you have any questions!

These charts were made using data taken from the water use surveys and water summary sheets you and your students filled out. Where it was useful, we compiled a chart using all of the data from the surveys and a chart from each school, so you could compare your school to the overall averages. I chose these graphs because I thought they were interesting, and I'm including the data (on the CD) so you can compile other graphs and make overheads. All of the charts were made from data taken from the survey. For the water conservation and outdoor use graphs (#4-11), the title (and content) of the chart is the same as a question on the survey. In those cases the items on the x-axis were the multiple choice options offered.

Please contact us if you have any questions! I can send these data and charts in different formats, so let me know if you're having problems using it. Also, the water use survey used in this study can be found at: http://nh.water.usgs.gov/CurrentProjects/seacoast/ed_packet.htm

Definitions:

Per capita water use: the amount of water one person uses per day. In these graphs we are showing this number in gallons.

Bar Graphs:

1. Per capita indoor water use (average number in gallons). Each average per capita water use amount per school is shown in gallons and compared to other schools participating in the study and to the study average.
2. Number of people living in household versus per capita water use (more people living in household = less water used). (1 person in household occurred when a student collected information on personal use).
3. Percent of low-flow toilets used in households. This graph indicates the number of households that have each range of percentages. The data was taken from the water use survey.

Water Conservation:

4. Type of action taken to conserve water. This shows the results from the question below (from the survey):

Have you done any of these actions to conserve water? (Please check all that apply)

- ☐ Take Shorter Showers
- ☐ Installed low-flow plumbing fixture(s)
- ☐ Reduced landscape area irrigated
- ☐ Water outdoors during early morning or evening
- ☐ Installed a water efficient irrigation system
- ☐ Other (Please specify)

5. Why do you conserve water? This shows the results from the question below (from the survey):

Do you limit how much water you use for any of these reasons? (Please check all that apply)

- ☐ *Not sure well has enough water*
- ☐ *Keep electrical bill down*
- ☐ *Keep water bill down*
- ☐ *Not sure septic system can handle all wastewater*
- ☐ *Want to conserve water to protect the resource*
- ☐ *Other (Please specify)*

6. Bar graph comparing reason for conserving water and per capita water use for both well and public supply users.

Pie Charts:

Water Conservation:

7. Why do you run the water continuously? This shows the results from the question below (from the survey):

Do you run water continuously for any of these reasons? (Please check all that apply)

- ☐ *Until it's cold*
- ☐ *Until it's hot*
- ☐ *To keep pipes from freezing*
- ☐ *While using garbage disposal*
- ☐ *While hand-washing dishes*
- ☐ *Other (Please specify)*

8. Bar graph comparing households that run water continuously during an activity and per capita water use.

9. Percent of households who are concerned with the quality of their water. This shows the results from the question below (from the survey):

Are you concerned about the quality of your water? (Please check all that apply)

- ☐ *No*
- ☐ *Yes, we drink only bottled water*
- ☐ *Yes, we have had our well water tested during the past year*
- ☐ *Yes, we look at the water quality report sent by our water company*
- ☐ *Yes, we have our own treatment system*
- ☐ *Other (Please specify)*

Outdoor Use:

10. Percent of households affected by the 2003 drought? This shows the results from the question below (from the survey):

How were you affected by last year's drought?

- ☐ *No problem*
- ☐ *Not enough water to irrigate as much as I wanted to*
- ☐ *Couldn't irrigate at all*
- ☐ *Well(s) went completely dry*

Bar Chart:

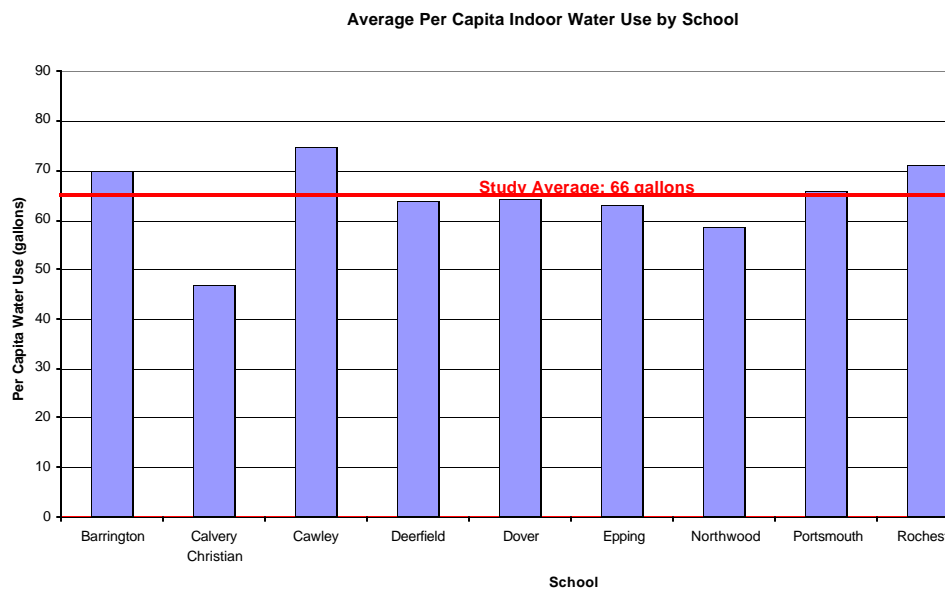
Outdoor Use:

11. Time of day household typically irrigates. This shows the results from the question below (from the survey).

When do you irrigate?

- ☐ *Early morning*
- ☐ *Late morning*
- ☐ *Afternoon*
- ☐ *Evening*

1.



Bar graph shows per capita indoor water use by school. This graph compares per capita indoor water use by student with other schools and with the study average of 66 gallons per day per person.

2.

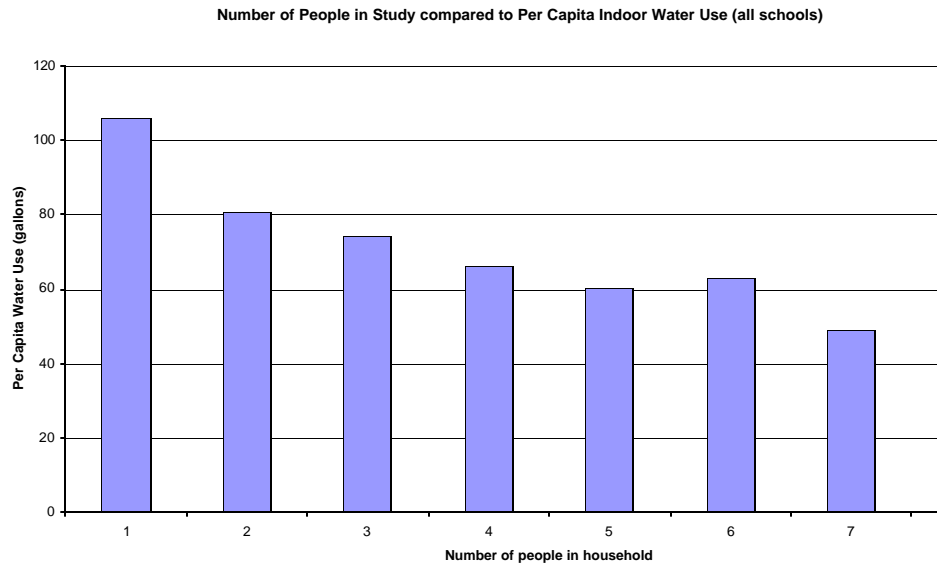
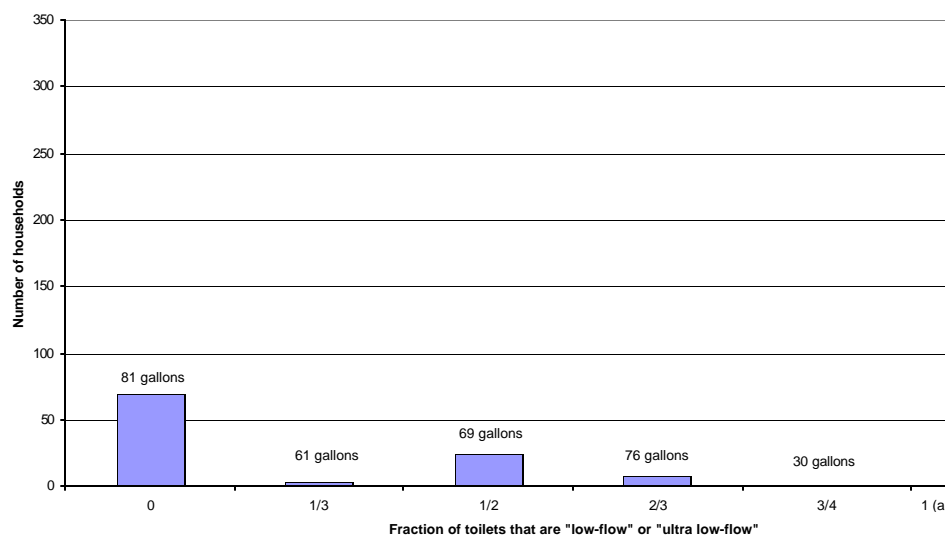


Chart comparing number of people in household and per capita indoor water use for all schools. This graph shows that indoor water use decreases as there are more people in the household. This is primarily because some activities, such as dish washing, can be combined for several people without more water being used. Sometimes competition for hot water limits the number and duration of showers. Households with one "number of people" indicates that only one person collected data for that household.

Fraction of "low-flow" or "ultra low-flow toilets: All Schools



Bar graph showing the number of households that have low-flow/ultra low-flow toilets (using all data). The total number of households that responded was 414. The number over each bar represents the average water use per person per day for households having that fraction of "low-flow" and "ultra low-flow" toilets. Note: Washing machines have surpassed toilets as the most significant water use appliance.

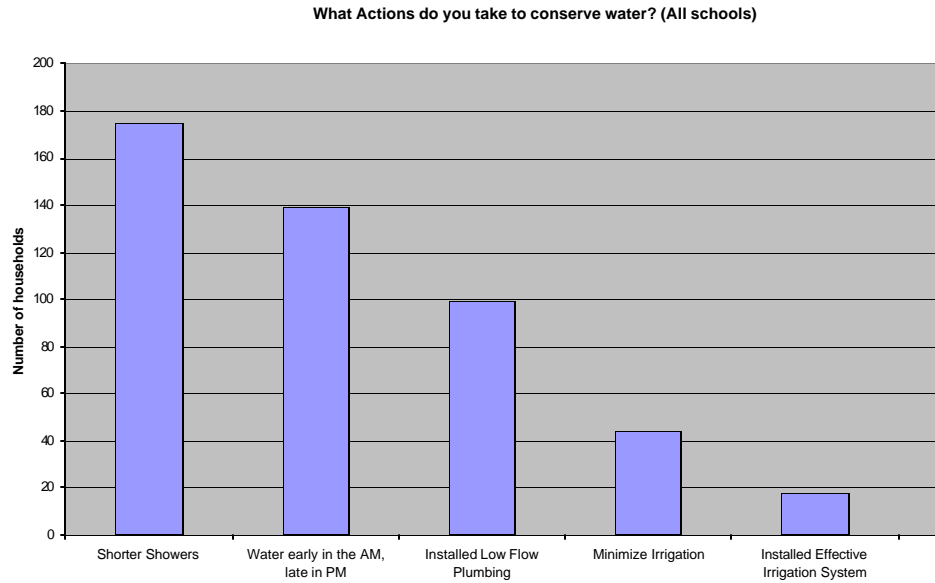
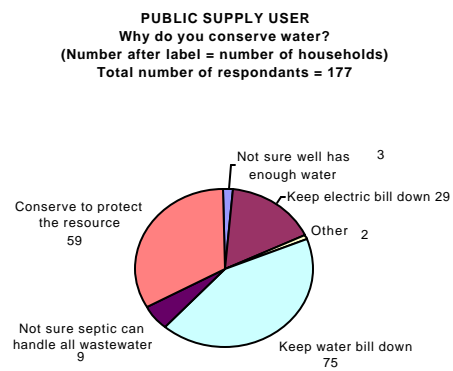
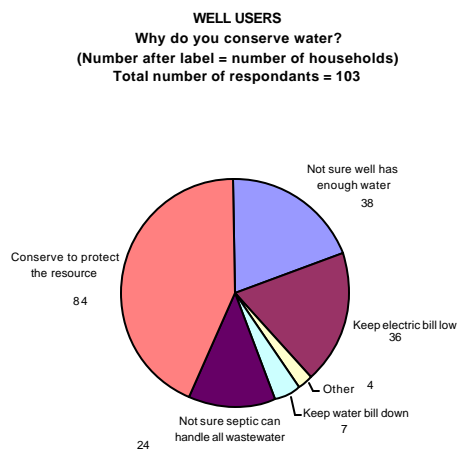


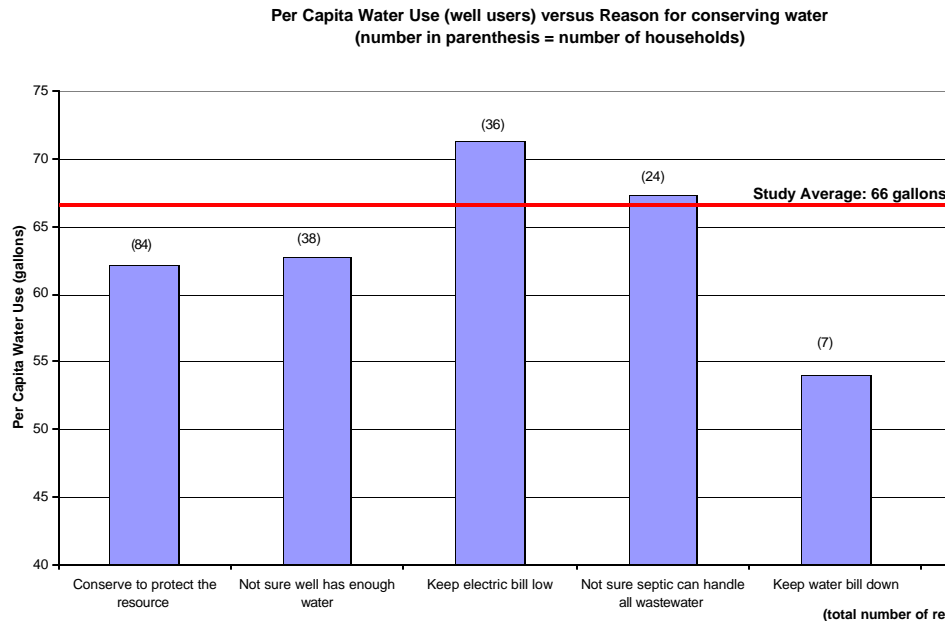
Chart showing the number of households that take specific actions to conserve water, using all data. Y-axis shows number of households. Taking shorter showers, irrigating in the early morning or late evening, and installing low flow plumbing are common actions taken. Note: there was no way of measuring whether or not households that said they conserved water per capita, and anecdotal data indicates that not everyone who said they took shorter showers as a conservation did (by comparison with other respondents). We are defining a “short shower” as 5-10 minutes.

5a.



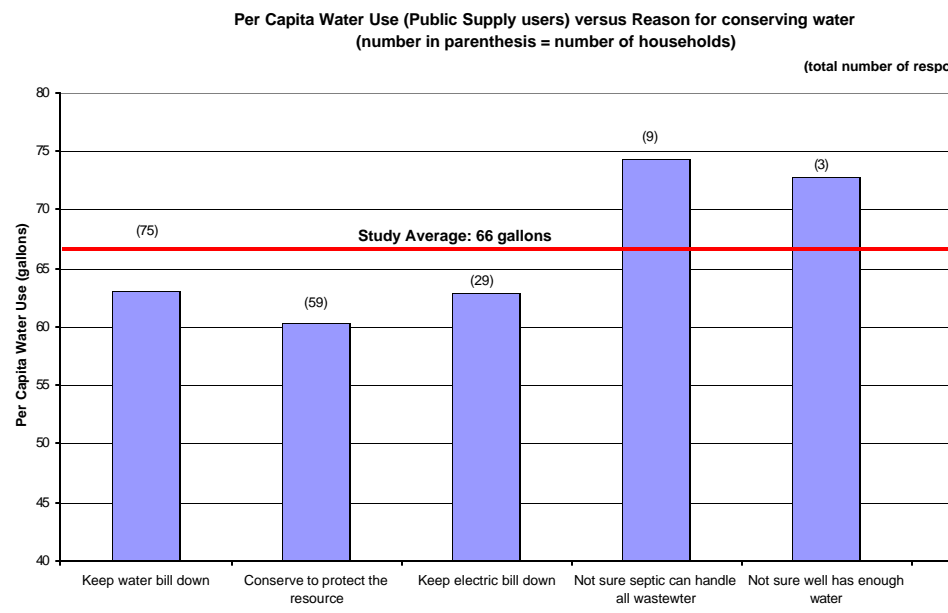
Pie charts showing reasons why people conserve water, using all available data. The chart on the left shows data from homes with wells, and the chart on the right shows data from homes on public supply. The most common reasons for people conserve water are to protect the resource and because they aren't sure resource has enough water, and common reasons for homes on public supply to conserve water are to protect the resource and to keep the water bill down.

6a.



Bar chart showing per capita water use versus reasons why households (on well water) conserve water. Households protect the resource and to protect their well use less water than those that are worried about the electric bill or their

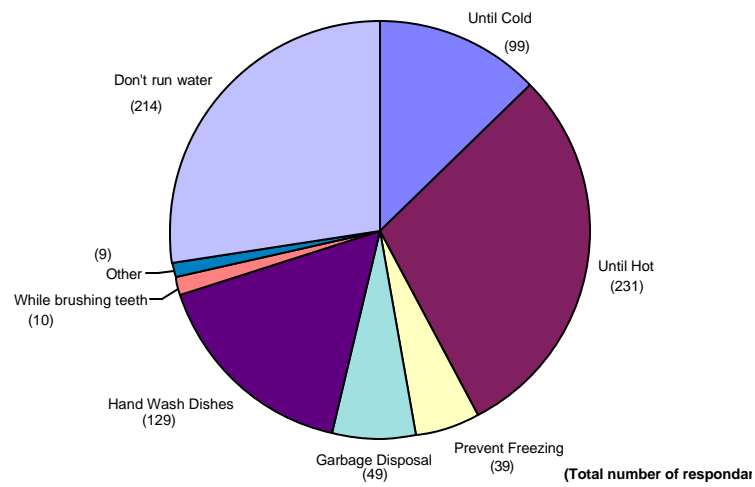
6b.



Bar chart showing per capita water use versus reasons why households (on public supply) conserve water. Households to keep the water bill down and to protect the resource use less water than those that are worried about their septic tank

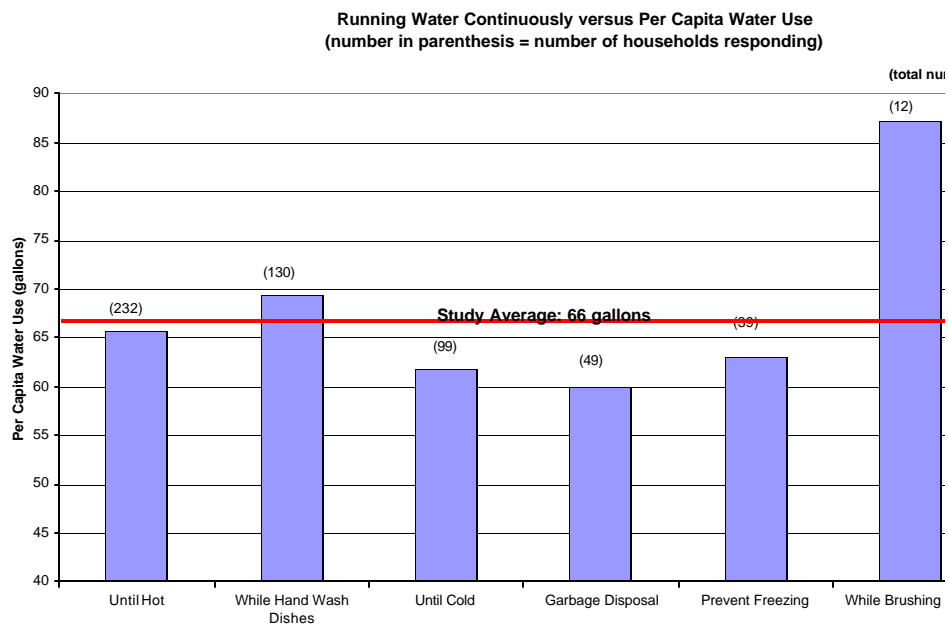
7.

Do you run water continuously? (All schools)
(Number after reason = number of households)



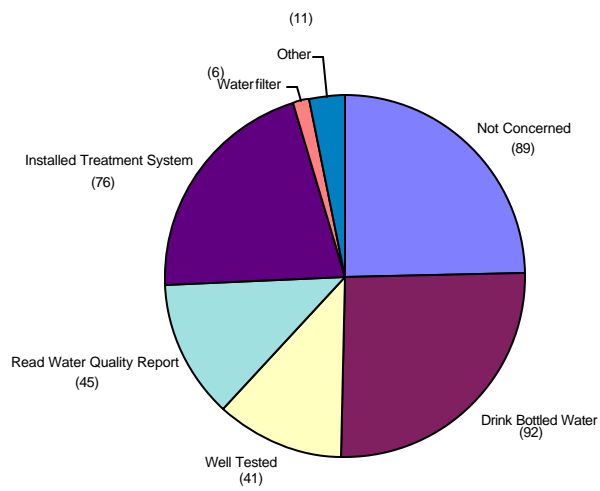
Pie chart showing number of households that run water continuously, for each reason. Of those that run the water, the reasons are to run water until it is hot, cold, and to hand wash dishes.

8.



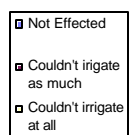
Bar graph showing number of households (number in parenthesis) that run water continuously for various reasons and per capita water use. This data indicates that households that run the water while brushing teeth and hand washing dishes use the average water overall, and running water while using the garbage disposal, until the water is cold, or to prevent pipe freezing doesn't effect overall water use as much.

Are you concerned with the quality of your water? What do you do in response?: All Schools
(Number in parenthesis = number of households)
Total Number of respondents = 360

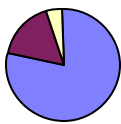


Pie chart showing actions taken in response to concerns about water quality. This chart uses all data, and indicates that 89 households are not concerned about water quality, but of those that are, the most common reactions are to drink bottled water and to install a water treatment system.

Were you affected by the 2003 drought? (All schools)



Barrington (23)



Calvary Christian (8)



Cawley (22)



Deerfield (8)



Dover (6)



Epping (29)



Greenland (36)



Northwood (36)



Portsmouth (44)



Rochester (9)

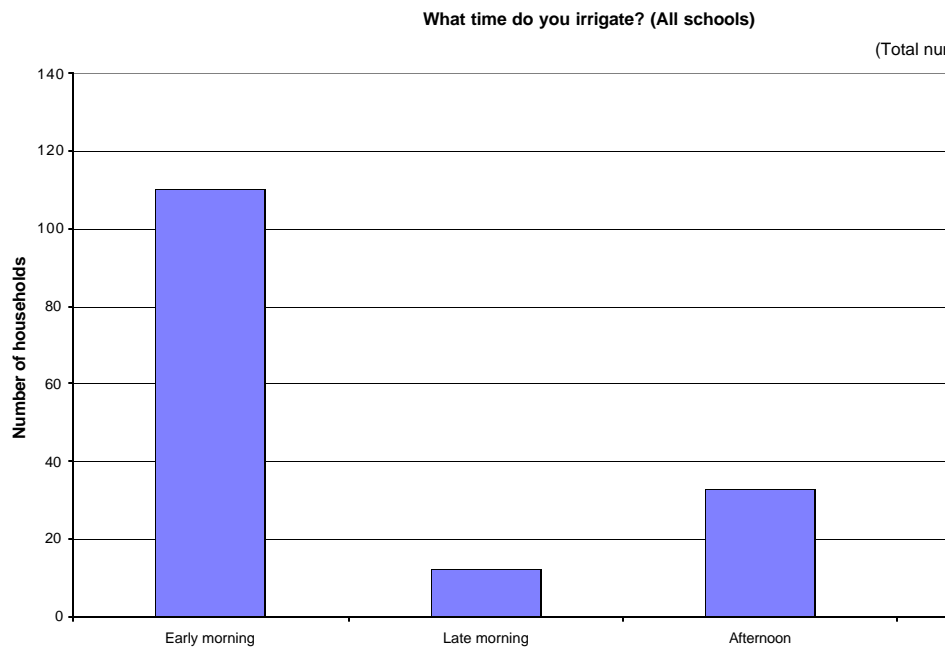


Timberlane (35)



Pie Charts for each school showing the number of people affected by the drought in 2003. All charts have the same

11.



Bar graph showing when people irrigate. In this area, most people irrigate in the evening and early morning.